ATTACHMENT 3
WORK PLAN

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Table of Contents

Introduction

Goals and Objectives

Joshua Basin Water District Recharge Basin and Pipeline Project -- The goals and objectives of the proposed project consist of the following:

1) Provide a primary source of groundwater recharge to increase storage, in the Joshua Basin region;
2) Allow the storage of water during wet hydrologic periods for recovery and use during dry periods, to provide JBWD customers with increased water supply reliability;
3) Reduce the demand for local groundwater;
4) Enhance water supply reliability;
5) Provide additional recharge to underlying groundwater basin, thereby reducing and/or reversing the degradation of local septic leachate on nitrate level buildup in District's water supply;
6) Take full advantage of total water supply available to the District - allowing acceptance of long-term State Water Project allocation, which have not been received due to lack of needed facilities;
7) Reduce or offset future economic impacts to the District customers by reducing need for extensive rate increases for water supply augmentation;
8) Reduce or eliminate risk of local ground subsidence caused by depleted groundwater levels within groundwater basin;
9) Replenishment of local groundwater basin prevents need to design, drill and operate deeper water supply wells which would result from groundwater basin depletion; and
10) Provides replenishment water to groundwater basin, needed as a result of reduced natural replenishment resulting from global climate change causing longer and drier drought periods.

Hi-Desert Water District Wastewater Treatment and Water Reclamation Project -- The following are the key objectives of District's wastewater program:

1) Construct a wastewater collection system to reduce the quantity of leachate from septic tank systems flowing into aquifers used for the District's potable water supply;
2) Treat wastewater to a level such that percolated effluent will not degrade groundwater quality;
3) Provide the core infrastructure for expansion of the collection, treatment and disposal system as needed either to further protect groundwater, or to accommodate growth in the District's service area;
4) Maximize the total water supply available to the District; and
5) Minimize any adverse economic and environmental impacts on the community.

In addition, specific objectives for the Phase 1a treatment facilities are as follows:

6) Provide sufficient treatment capacity to ensure continuous compliance with anticipated regulatory requirements for an average annual wastewater flow of 0.125 mgd.
7) Provide for future expansion of the plant to an annual average flow capacity of 4 mgd.

Mojave Water Agency Turf Removal Conservation Incentive Program – The objective of this program is to:

1) Incentive removal of up to six million square feet of turf grass to produce a long-lasting reduction in water demand of 1,012 acre-feet per year; and
2) Track long-term performance of the program, and make this information available to other water suppliers and interested parties.

Purpose and Need

A description of the purpose and need of the Proposal and how it addresses the adopted IRWM Plan's goals and objectives.

High Desert Hydrology and Overdraft

The MWA service area lies in the California High Desert, which is part of the Mojave Desert. The High Desert Area is located on the northeastern flanks of the San Bernardino and San Gabriel Mountains, which separate the High Desert from the coastal basins and inland valleys of the greater Los Angeles area. Average rainfall within the lower lying areas of the Mojave Basin Area and Morongo Basin/Johnson Valley area is roughly five inches per year[1]. The 1980 edition of the Department of Water Resources' Bulletin 118 states that there is evidence of overdraft in the following MWA basins: Lower Mojave River Valley, Middle Mojave River Valley, Upper Mojave River Valley, Harper Valley, Warren Valley and Lucerne Valley.

All water suppliers share a keen interest in their local and regional water supplies. The economic health of the region is tied to its ability to demonstrate that affordable high quality water will be available as the region develops. Overdraft in 2000 averaged approximately 34,300 acre-feet per year, and is projected to increase to 50,600 acre-feet by 2020[2]. Consumptive use in the MWA service area is currently approximately 108,000 acre-feet per year, and is expected to grow to approximately 124,000 acre-feet by 2020[3]. Less than half of 2020 demands would be met without RWMP implementation and full implementation of two adjudicated physical solutions.[4] Relative impacts would be severe in some subareas, with less than 20 percent of demands met.

Adjudications

Scarcity of water in the Mojave region and rapid growth in water use led to two adjudications within the MWA service area: the Mojave Basin Judgment, and the Warren Valley Judgment.

Mojave Basin Judgment. Fearing uncontrolled overdraft of the Mojave Basin, adjudication proceedings were initiated in the mid-1960s, and ultimately negotiations resulted in a 1993 Stipulated Judgment that: 1) formed a minimal class of producers using 10 acre-feet or less per year who were dismissed from the litigation, and 2) offered a physical solution for water production by the remaining producers.

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[1] RWMP p.3-23

[2] RWMP Tables 5-6 and 5-12 with current SWP imports level of 8,000 acre-feet per year

[3] RWMP Tables 5-9 and 5-10

[4] PEIR p.6-15

The Appellate Court issued a final decision in June 1998. The Supreme Court affirmed the decision in August 2000[5]. The Mojave Basin Judgment assigned Base Annual Production (BAP) quotas to each producer using 10 acre-feet per year or more, based on historical production. Users are assigned a variable Free Production Allowance (FPA), which is a uniform percentage of BAP set for each subarea. This percentage is reduced, or "ramped-down" over time until total FPA comes into balance with available supplies. This percentage was set at 65-80% for the five subareas as of May 2010. Any water user that pumps more than their FPA is compelled to purchase replenishment water from MWA equal to the amount of production in excess of the FPA.

Warren Valley Judgment. Groundwater from the Warren Valley Basin is used to supply Yucca Valley and its environs. Extractions from the Basin began exceeding extractions in the 1950s. The progressively increasing overdraft led to adjudication of the Basin in 1977[6]. In its Judgment, the court appointed the Hi-Desert Water District as Watermaster and ordered it to develop a physical solution for halting overdraft. Objectives identified by the Watermaster Board included managing extraction, importing water supplies, conserving stormwater, encouragement of conservation and reclamation, and protecting groundwater quality. A Basin Management Plan[7] was adopted that called for importing SWP water from MWA through the then-proposed Morongo Basin Pipeline to balance demand and replenish past overdraft.

Key Water Management Issues

Identification of the area's key water management issues[8] stemmed from evaluation of hydrogeologic data, the RWMP update of supply and demand estimates, and a stakeholder outreach and assessment process. The following six key water management issues emerged from this process:

1. Demand Exceeds Supply. The projected year 2020 water balance shows a water deficit in MWA service area of over 50,000 acre-feet per year.
2. Water Quality. Water quality problems affect drinking water supplies throughout the MWA service area. Key constituents of concern include arsenic, nitrates, iron, manganese, chromium VI and TDS.
3. Overdraft of the Groundwater Basins. Declining groundwater levels occur in all subareas of the Mojave Basin Area and in the Morongo Basin/Johnson Valley Area.
4. Riparian Ecosystem Maintenance. All but two of the subareas (Oeste and Morongo Basin/Johnson Valley) have potential riparian maintenance issues to consider, such as invasive species and habitat preservation.
5. Wastewater Infrastructure. Wastewater infrastructure issues affect the two subareas with the largest urban water demands within the Mojave Basin Area (Alto and Centro).
6. Subarea Interaction. Many subareas within the MWA service area are impacted by activities in other subareas. These impacts include water supply and water quality issues.

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[5] *RWMP p.2-1*

[6] Hi-Desert Water District v. Yucca Water Company Ltd., Case Number 172103, San Bernardino, California, September 16, 1977.

[7] Warren Valley Basin Management Plan, Kennedy/Jenks/Chilton, January 31, 1991. Adopted by Watermaster May 10, 1991.

[8] RWMP p.8-12

How Proposed Projects Address Needs

- Projects will help balance supply and demand and address groundwater overdraft
    - **Joshua Basin Water District Recharge Basin and Pipeline Project** – will recharge an average of 2,000 acre-feet per year into the overdrafted Joshua Tree Groundwater Basin in one of the driest areas within the Region which has essentially no net natural recharge
    - **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** – Phase 1a will recharge 140 acre-feet per year of tertiary-treated wastewater effluent into the overdrafted Warren Valley Groundwater Basin[9]
    - **Mojave Water Agency Turf Removal Conservation Incentive Program** – will eliminate 1,012 acre-feet per year of groundwater pumping throughout the overdrafted Mojave River area groundwater basins.
- Projects that improve water quality
    - **Joshua Basin Water District Recharge Basin and Pipeline Project –** will provide additional recharge to underlying groundwater basin, thereby reducing and/or reversing the degradation of local septic leachate on nitrate level buildup in District's water supply[10]
    - **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** – will treat wastewater effluent from up to 5,500 connections[11] currently on septic systems and treat this water to a tertiary level
- Projects that enhance maintenance of riparian ecosystems
    - Overdraft reduction projects in the Mojave Floodplain aquifer (**Turf Removal Conservation Incentive Program**) will help to restore near-surface groundwater flow patterns in Mojave River riparian areas
    - **Joshua Basin Water District Recharge Basin and Pipeline Project** – An assessment is made on each acre-foot of imported water to fund a Biological Resources Trust Fund for the benefit of the targeted riparian habitat areas and species identified in the Mojave Area Judgment
- Projects that address wastewater infrastructure needs.
    - The **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** – will provide wastewater collection and treatment services for up to 5,500 connections[11] and eliminate an equal number of septic tank systems linked to groundwater quality degradation
- Projects that address subarea interaction issues

[9] With subsequent phases, the total project will recharge 4,500 acre-feet per year

[10] The USGS (in an unpublished study) (Effects of Artificial Recharge on Nitrate Concentrations in Ground Water in the Joshua Tree Subbasin, California) has identified increasing nitrates in the basin, which without the project will exceed MCL's particularly in the older area of Town where the recharge project is located. The field work for this study has been completed. The report has been drafted and is under peer review.

[11] approximately 175 connections in Phase 1a

- Water conservation programs such as the **Turf Removal Incentive Program** reduce area-wide consumptive use, lessening subarea interaction conflicts -- nearly the entire region is subject to the requirements of two court judgments that must be administered on a regional level.
- **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** – will recharge treated wastewater effluent just upstream of the Joshua Tree groundwater basin, maintaining and enhancing existing basin inflow patterns
- **The JBWD Recharge Basin Project** will recharge raw water into the local groundwater basin, maintaining and enhancing the basins inflow patterns and reducing nitrate issues throughout the water supply.

- Flood damage reduction
  - The **Joshua Basin Water District Recharge Basin and Pipeline Project** is designed to capture on-site runoff, and to accommodate and contain the adjacent Joshua Creek floodway.
  - The **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** is designed to capture on-site runoff, and to channelize and attenuate the flow of a significant local drainage feature to reduce flooding in the downstream **Paradise Valley** neighborhood, a disadvantaged community.
  - Integral to the **MWA Turf Removal Conservation Incentive Program** is consultation with Agency staff and recommendations for landscape architects to design replacement landscapes that will retain rainwater onsite to maximize percolation to the groundwater aquifer. Capturing stormwater on-site minimized flow to storm drains and reduces the potential for downstream flooding.

How Proposed Projects were Selected

RWMP Chapter 9 describes the development of Basin Management Objectives, formulation of alternatives, and selection and prioritization of projects and management actions. A total of 53 distinct projects and management actions were identified and screened. Each project was first described with costs and yield described on a comparable basis. Each project was tested using a Decision Support Model for the MWA service area built using the STELLA modeling platform. Combinations of projects and actions were evaluated based on their ability to meet Evaluation Criteria that were developed to measure success in obtaining the project objectives. The adopted plan identifies 19 primary projects or actions[12], 60 Management Actions[13], and 43 mitigation measures[14] to implement these strategies. The three projects proposed for grant funding were included in the prioritized list of projects.

The RWMP Technical Advisory Committee (TAC) was active in all phases of this process. The TAC developed the objectives, provided input on development of evaluation criteria, selected projects for

[12] MWA 2004 RWMP Table 9-9

[13] MWA 2004 RWMP Chapter 10

[14] MWA 2004 PEIR Appendix A

implementation, and assigned a priority to each. The TAC was also active in the development and review of the Program EIR and selection of the Environmentally Superior Project[15]. The three projects included in this grant application were selected by the TAC at their August 2010 meeting.

Consequences of Not Implementing Proposed Projects

Impacts and benefits were evaluated using the regional Decision Support Model[16]. CEQA requires that an EIR identify the environmentally superior alternative of a project. The PEIR[17] found that the recommended 2004 RWMP would constitute the environmentally superior project since it would avoid localized groundwater overdraft conditions for each subarea throughout the MWA service area, while providing for continued regional management and oversight of the groundwater resource.

Under the No Project Alternative with significantly lesser water imports, full implementation of the Mojave Area Judgment would still require that groundwater overdraft conditions be alleviated. As a result, the No Project Alternative would maintain regional water balance but drastically restrict groundwater pumping (up to 80 reductions in some areas). However, groundwater modeling results indicate that certain subareas within the service area would still experience localized overdraft under the No Project Alternative.

Non-implementation of the JBWD Recharge Pond Project will severely impact the region's overall water supply, as the existing aquifer has little or no natural recharge. Essentially all of the existing basin recharge is from local septic systems, which threaten the basin with nitrate buildup – ultimately threatening the community's only water resource.

The Hi-Desert Water District is proposing to construct a wastewater treatment plant and eliminate septic system discharges. The Colorado River RWQCB is scheduled to impose a septic prohibition in March 2016 to protect the drinking water supply. Phase 1a of the project will sewer the eastern portion of the Town of Yucca Valley and convey and treat an average of 0.125 mgd. Phase 1a is a portion of the ultimate project that will collect up to 4 mgd of sewage. Not implementing the Hi-Desert wastewater treatment plant project would result in RWQCB enforcement. Such enforcement for the similar Los Osos area includes prohibitions on existing and new septic systems and requirements for bi-weekly pumping of septic systems. Such provisions would have severe near-term and long-term impacts on the local economy.

Project List and Project Maps

A table of specific projects in the Proposal, including, an abstract of each project, the current status of each project in terms of percent completion of design, and implementing agencies.

[15] MWA 2004 RWMP Chapters 9.10

[16] MWA 2004 RWMP Chapter 9 p.9-29 and in the Program EIR

[17] MWA 2004 PEIR p.6-17

Three projects are proposed for funding in this grant application. The locations of these projects within the Region and the Proposition 84 Funding Areas are shown in Figure 1. A regional view of Disadvantaged Communities based on 80% of mean 2000 household income is presented as Figure 2. A listing of the three projects proposed for grant funding, together with a brief description and status is presented in Table 1.

Table 1 - Project List

Project and Implementing Agency	Abstract	Status
Joshua Basin Water District Recharge Basin and Pipeline Project (Figure 3) Colorado River Funding Area	JBWD will construct a 4.4-mile long 12-inch diameter water delivery pipeline and 30-acre recharge basin. The water supply pipeline will provide the District access to imported State Water Project water and will relieve current overdraft conditions in the Joshua Tree groundwater basin and reduce nitrate concentration of the region's water supply.. The proposed recharge pipeline project connects to the existing Morongo Basin Pipeline, located along the District boundary in the vicinity of Yucca Mesa Road and Barron Drive. The pipeline will be constructed within public rights-of-way to the recharge basin located one-quarter mile east of the intersection of Sunburst Street and Verbena Road. The basins will fill by gravity and no pumping equipment will be needed.	Design, environmental documentation, and land acquisition 100% complete
Hi-Desert Water District Wastewater Treatment and Water Reclamation Project (Figure 4) Colorado River Funding Area	HDWD will construct a wastewater treatment facility and collection system to serve the residents of the Yucca Valley area. There are currently no wastewater facilities in Yucca Valley, which relies on septic systems linked to nitrate contamination of the groundwater basin. Phase 1a of the wastewater treatment and collection system will provide service to the most densely populated area in Yucca Valley, which is also the location of the majority of the District's groundwater wells. Approximately 175 units (ultimately 5,500 units) could be served by the treatment facility, which will be designated to process 0.125 million gallons a day (ultimately 4 mgd). The effluent from the treatment facility will be percolated into the District's recharge basin.	Preliminary design, environmental documentation, and land acquisition 100% complete; Final design is 10% complete
Mojave Water Agency Turf Removal Water Conservation Incentive Program (Figure 5)	The Turf Replacement Water Conservation Incentive Program provides incentives to water users to reduce their per capita consumption by eliminating irrigated turf grass with partial replacement of drought tolerant and desert adaptive landscaping. Single-family, multi-family,	Program has been successfully implemented since 2008

Project and Implementing Agency	Abstract	Status
Lahontan Funding Area	commercial, institutional and industrial water users are eligible. Grant funds would allow an extension to the currently program which has been suspended for budgetary reasons. Up to two million square feet of turf grass would be replaced under this proposal. The project is consistent with the Conservation and Demand Management provisions of the MWA Integrated Regional Water Management Plan (IRWMP), and will be incorporated into a five-year conservation plan to be implemented upon finalization of the 2010 Urban Water Management Plan (UWMP) update. Long-term monitoring of the program will quantify the longevity of the benefits and any reversions to turf plantings.	

Integrated Elements of Projects

A description of synergies or linkages between projects that result in added value, or require coordinated implementation or operation.

The Hi-Desert wastewater treatment and reclamation project will recharge tertiary-treated effluent to percolation ponds upstream of the Joshua Tree basin, which will sustain and enhance historical subbasin inflows.

Figure 1 - Regional Map with Generalized Project Locations and Funding Areas

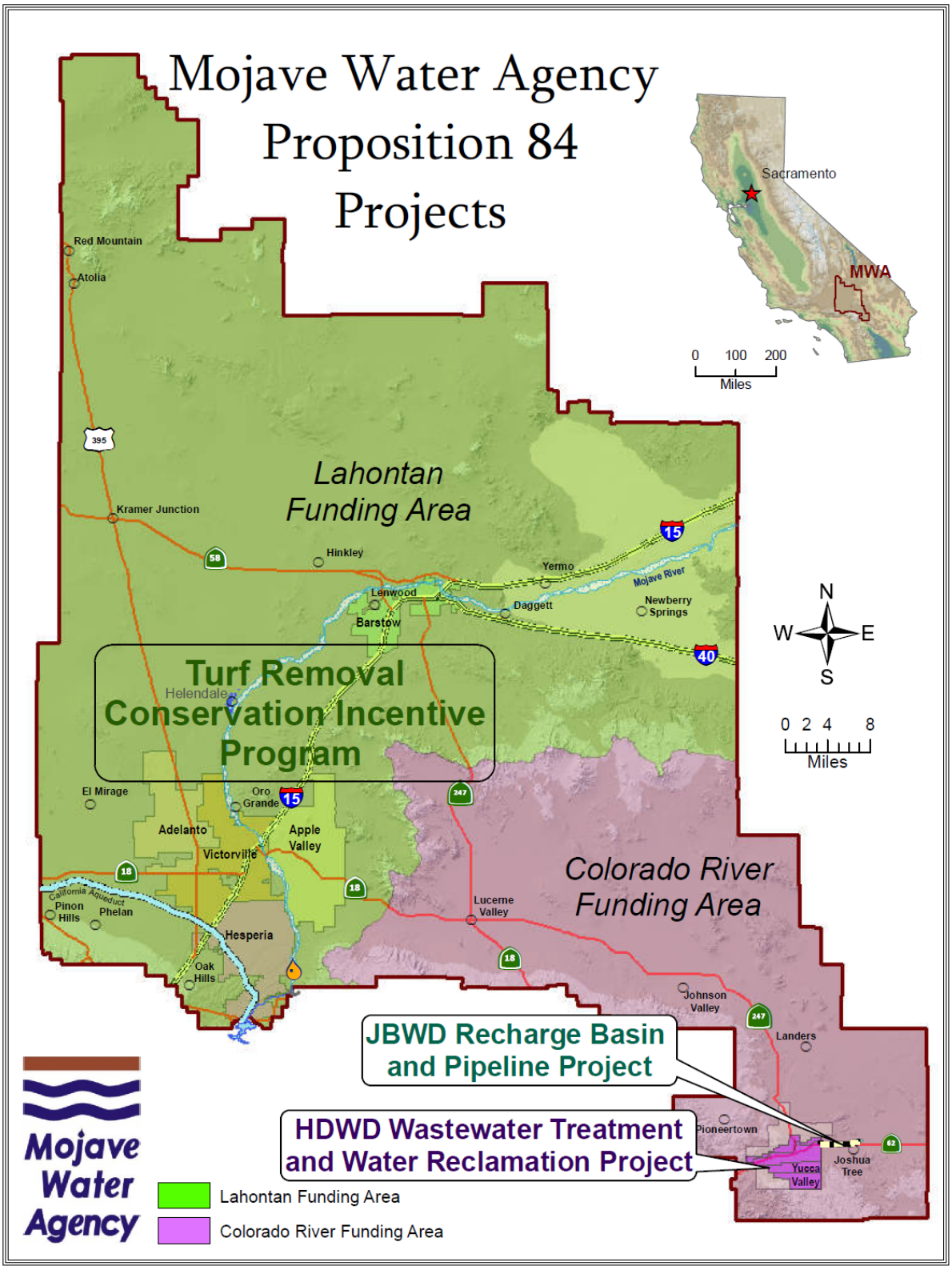


Figure 2 - Disadvantaged Communities in Project Area

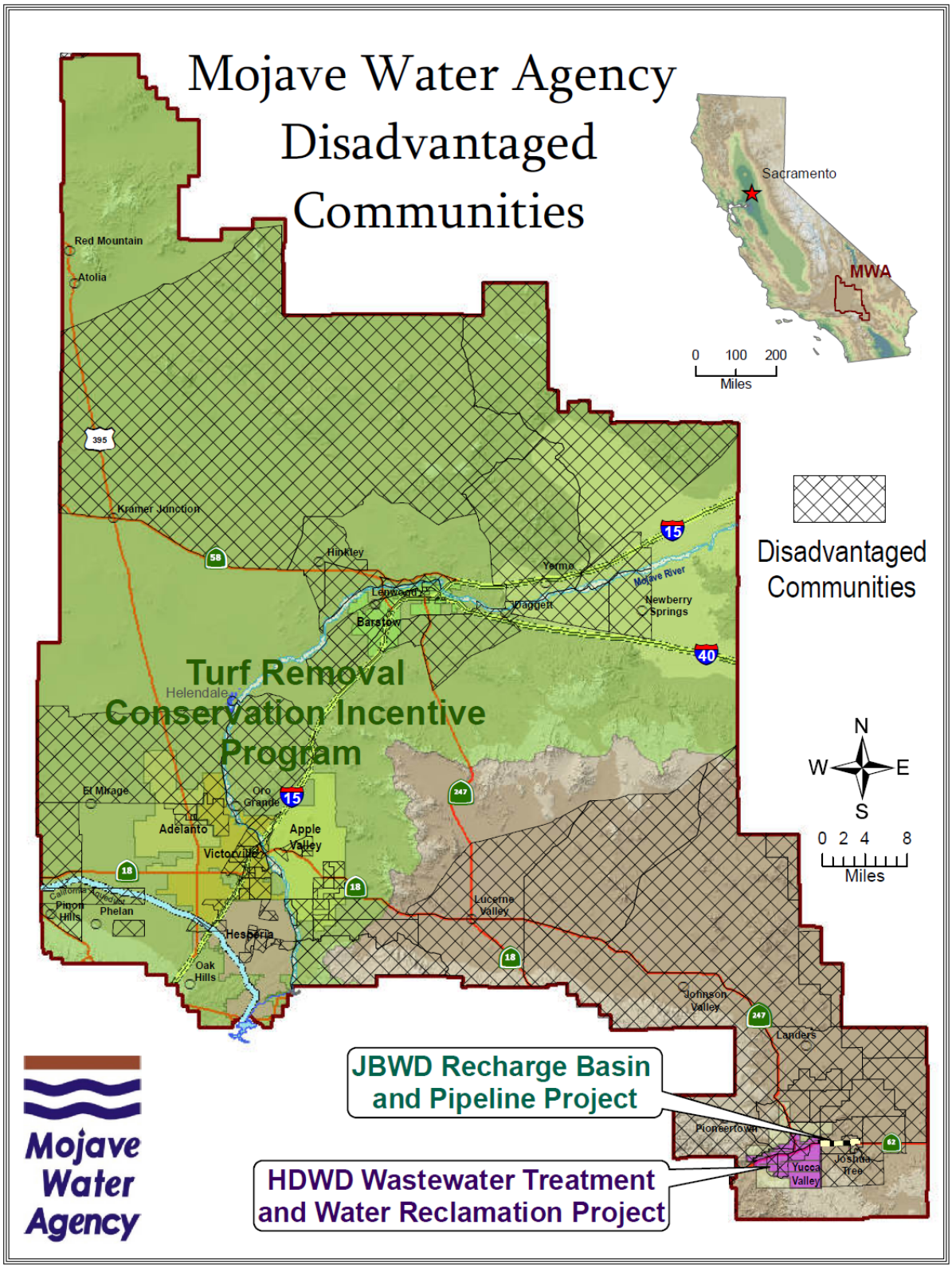


Figure 3 - Location Map: Joshua Basin Water District Recharge Basin and Pipeline Project

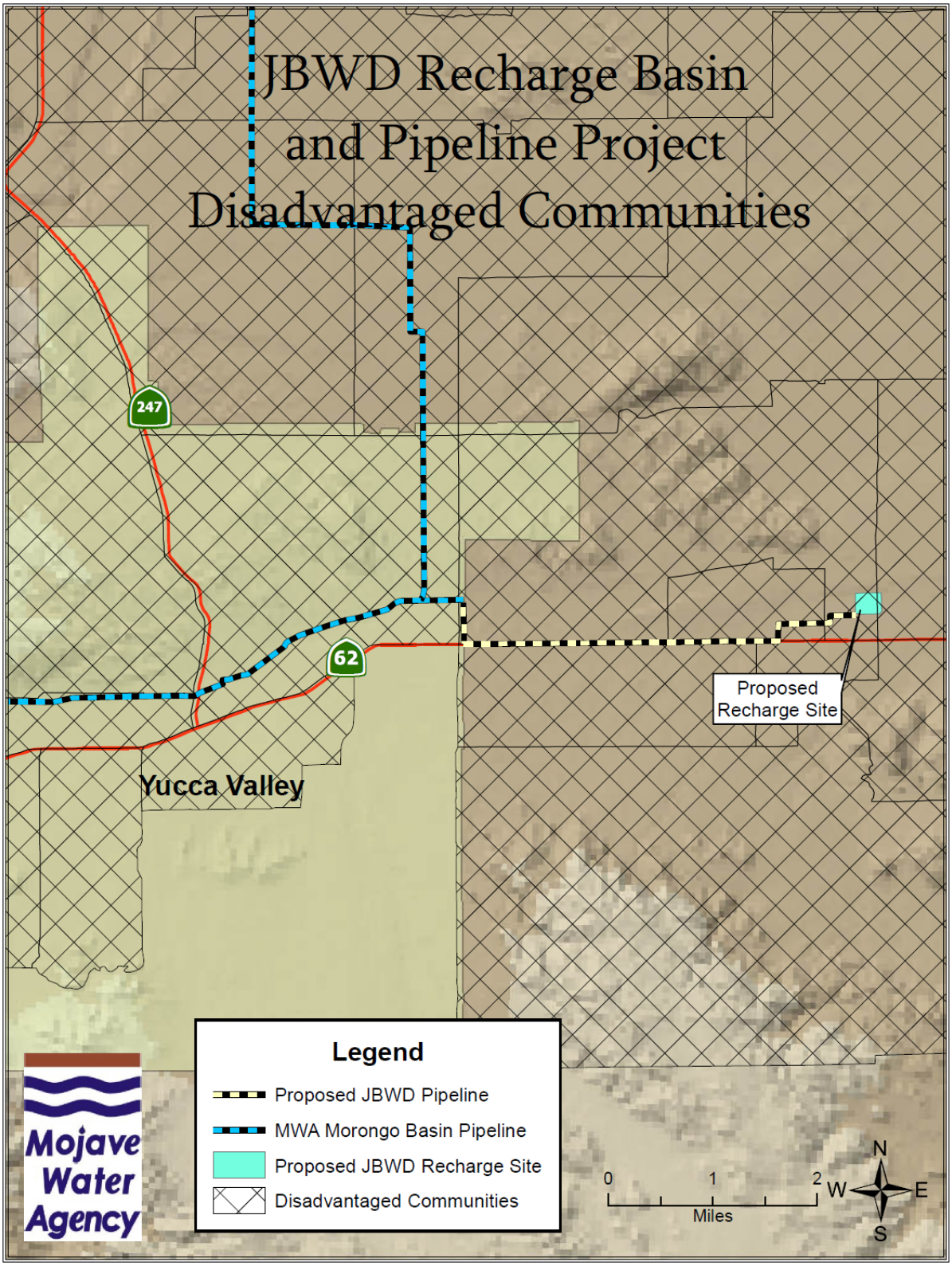


Figure 4 - Location Map: Hi-Desert Water District Water Treatment and Water Reclamation Project

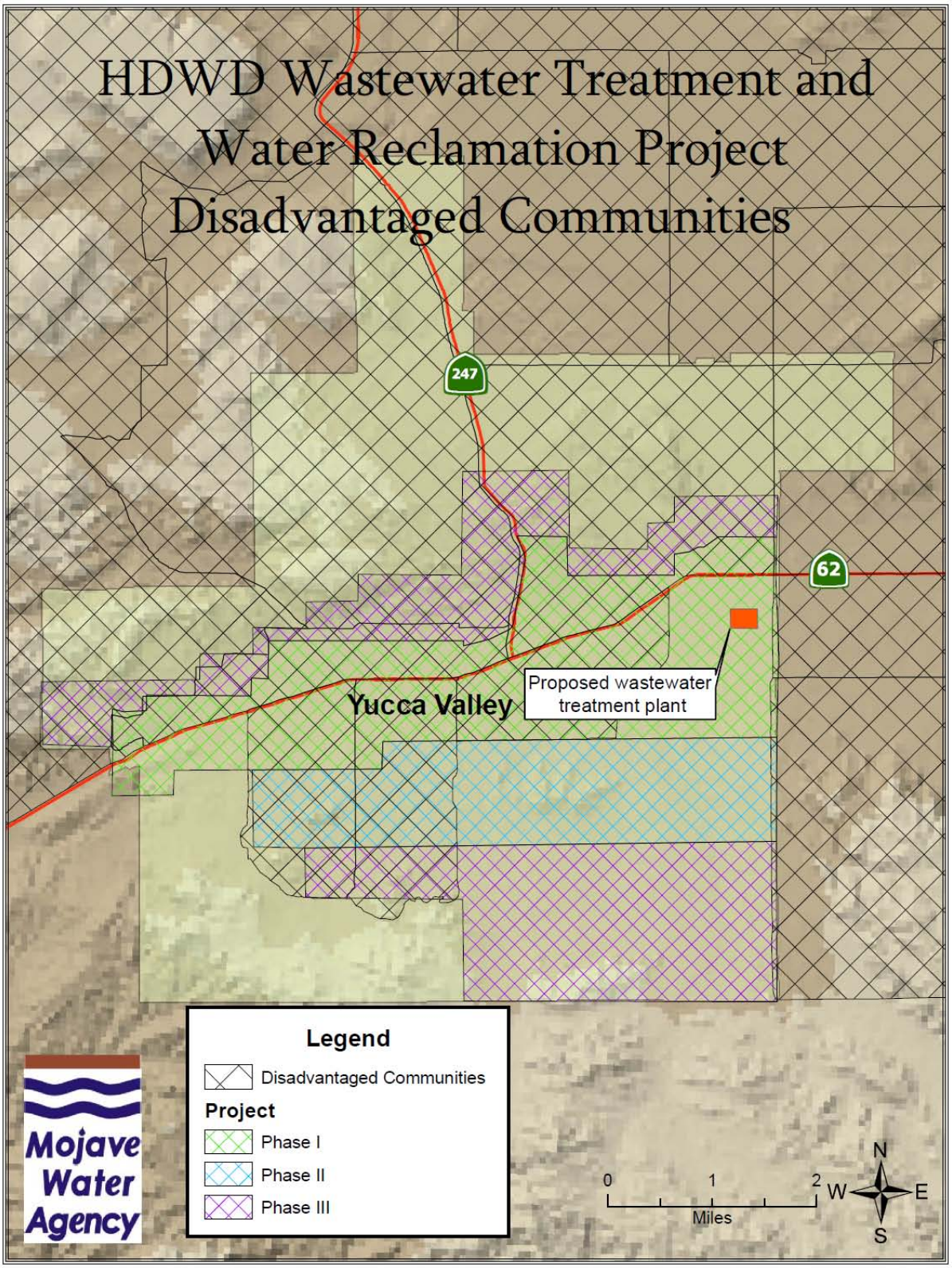


Figure 5 - Location Map: Mojave Water Agency Turf Removal Conservation Incentive Program

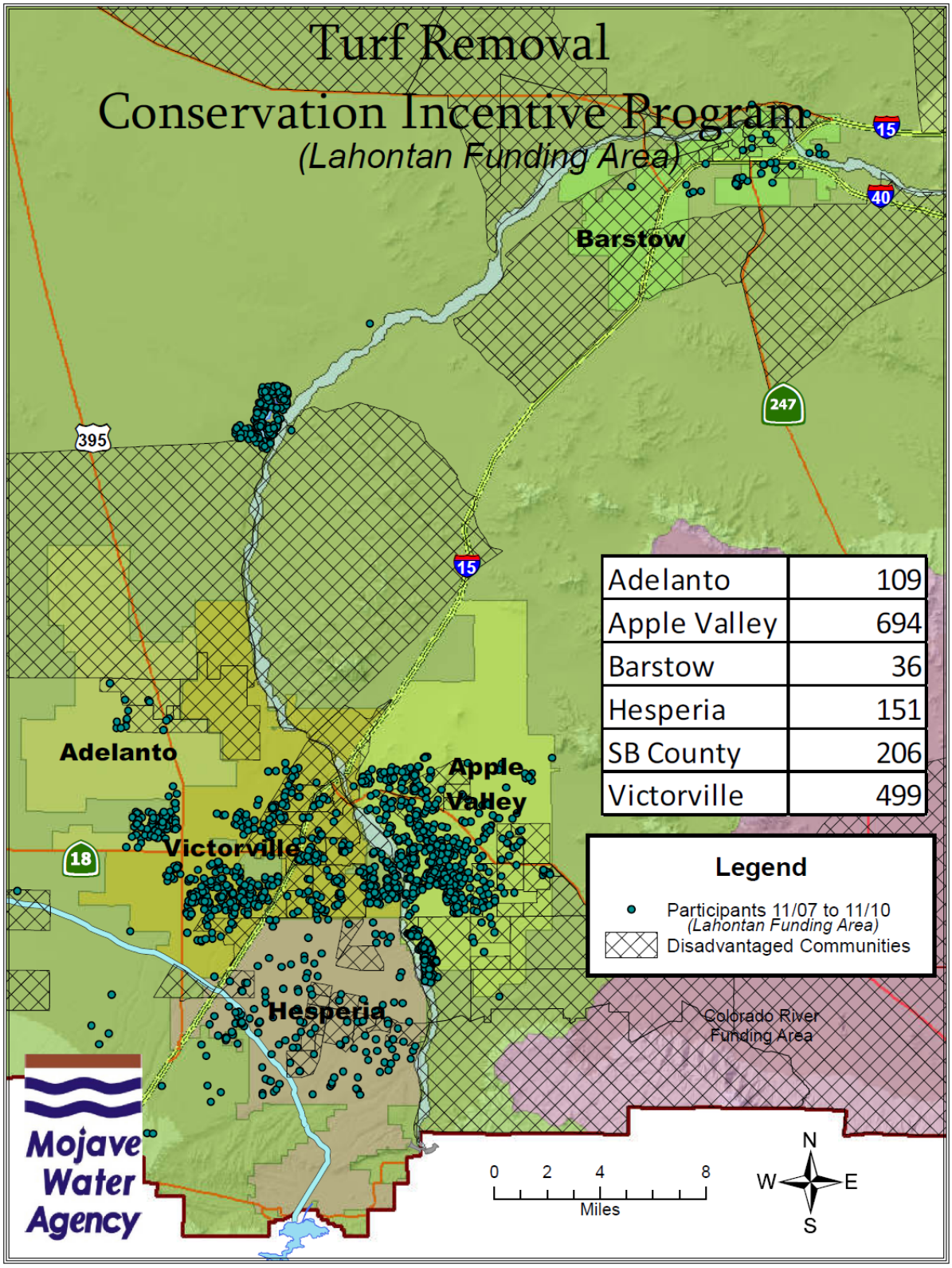


Figure 6 - HDWD Water Treatment Plant Collection System, All Phases

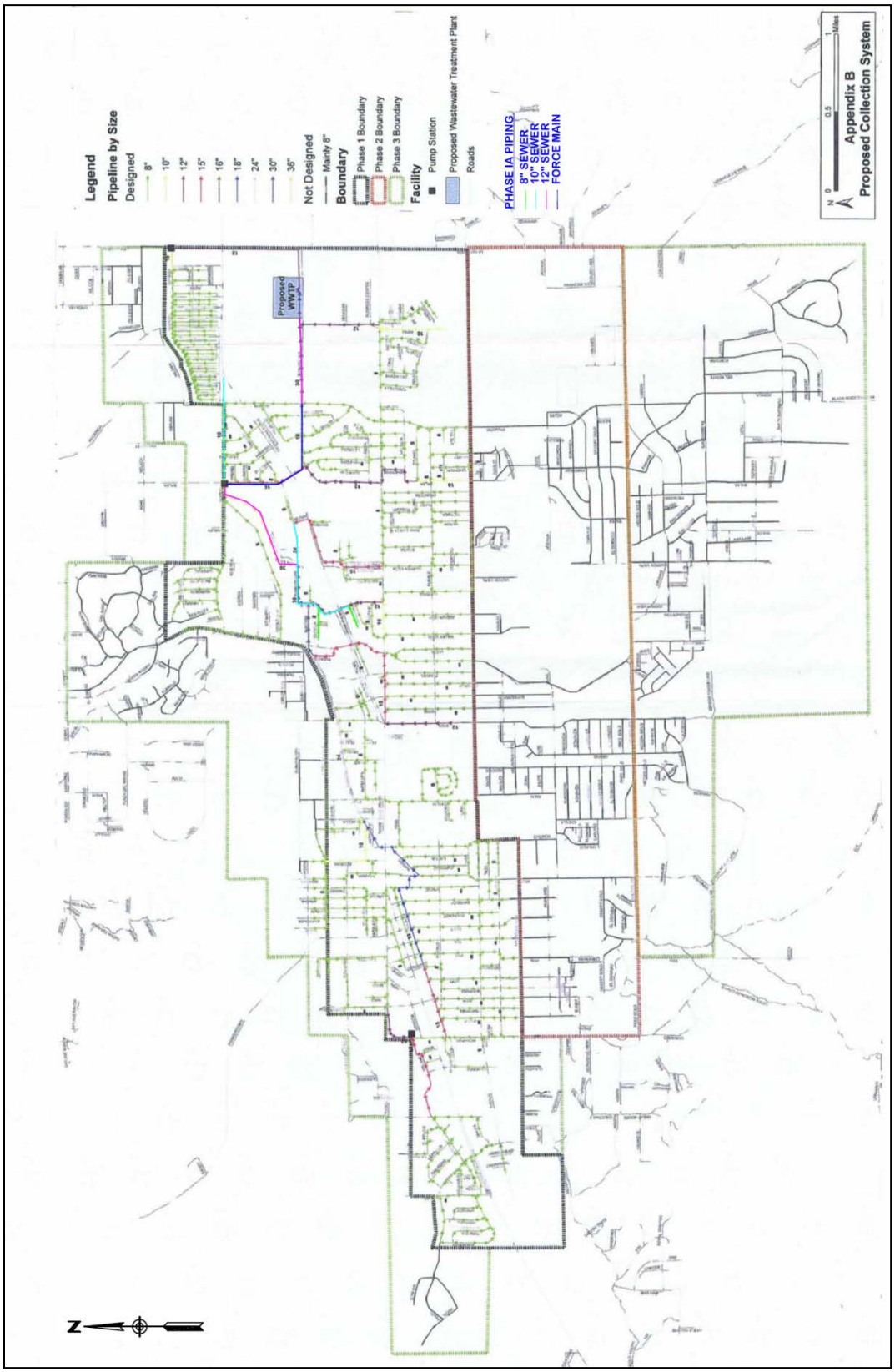
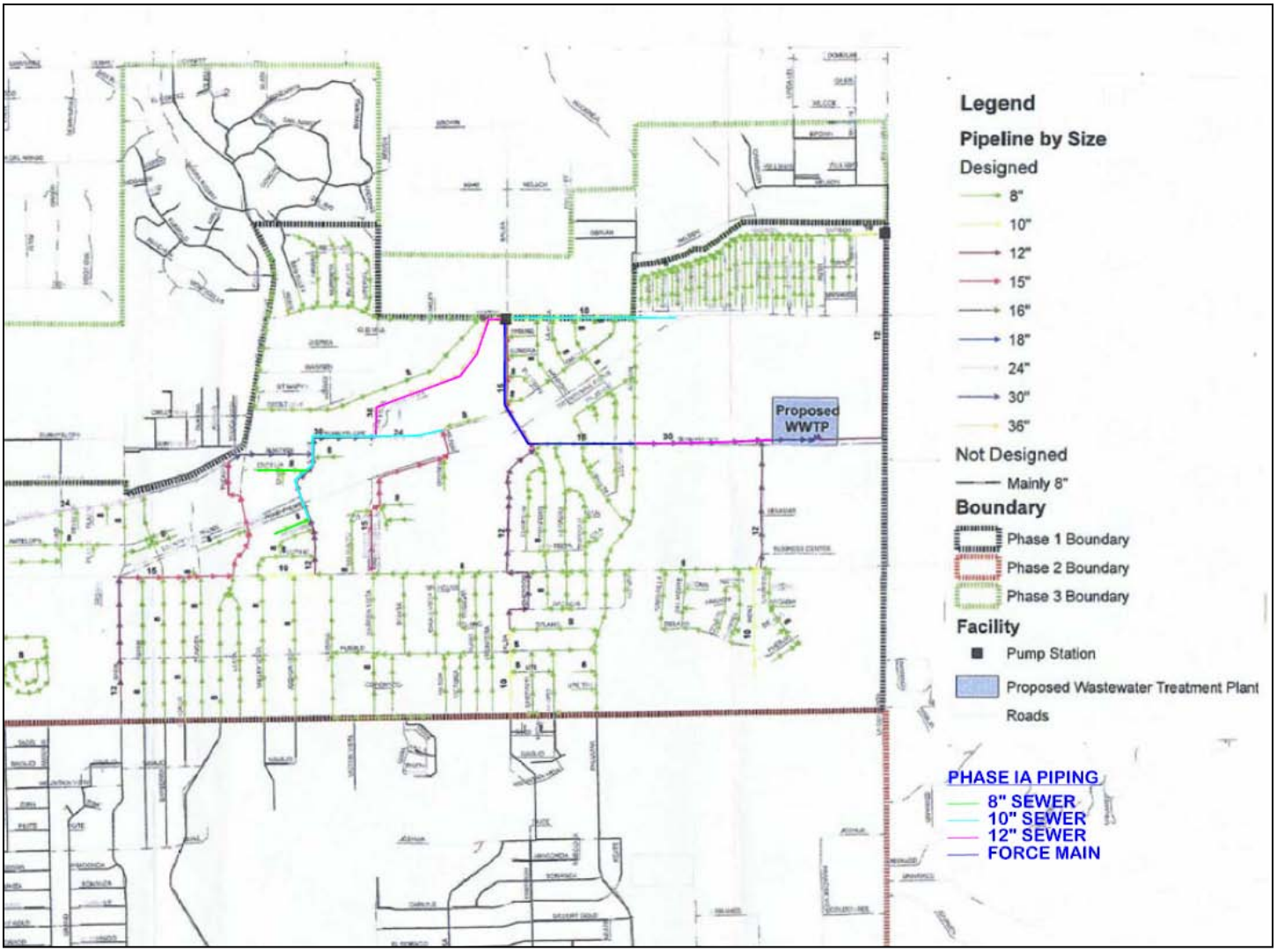


Figure 7 - HDWD Water Treatment Plant Phase 1a Collection System Detail



Completed Work, Existing Data and Studies

Workplan items expected to be completed prior to the grant award date are summarized in Table 1 (page 8). Existing studies and Workplan items of special interest include:

Environmental Documentation

- The EIR for the **Joshua Basin Water District Recharge Basin and Pipeline Project** was certified on September 23, 2009. The lead agency's environmental determination made findings adopting a Mitigation Reporting and Monitoring Program, issuing its statement of

overriding considerations, approving Alternative 3 (included in this grant application) as the preferred site for the recharge basin, and approving the proposed project.

- A Mitigated Negative Environmental Declaration for the **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** was adopted on August 5, 2009. A copy of this resolution is presented as Figure 9 (page 30). The lead agency's environmental determination found that all impacts are either insignificant or can be mitigated to a level of insignificance.
- The **Mojave Water Agency Turf Removal Conservation Incentive Program** is the continuation of an existing conservation program for which no additional environmental documentation is required.

Design Documents

- Dudek, October 2009. Joshua Basin Water District Recharge Basin Supply Pipeline Preliminary Design Report. Final design documents will be completed by May 2011.
- Montgomery Watson Harza, January 2009. Hi-Desert Water District Water Reclamation Facility Preliminary Design Report.

Special Studies

- U.S. Geological Survey, 2004. Evaluation of Geohydraulic Framework, Recharge Estimates, and Ground-Water Flow of the Joshua Tree Area, San Bernardino County.
- U.S. Geological Survey, 201_ (unpublished), Effects of Artificial Recharge on Nitrate Concentrations in Ground Water in the Joshua Tree Subbasin, California. The field work for this study has been completed. The report has been drafted and is under peer review.

Project Timing and Phasing

The **Joshua Basin Water District Recharge Basin and Pipeline Project** is not a phased project.

The Phase 1a of the **Hi-Desert Water District Wastewater Treatment and Water Reclamation Project** is a stand-alone first stage development of a larger regional treatment and collection system. The Phase 1a facilities will collect, fully treat, and reclaim 140 acre-feet per year. A summary of the full project and Phase 1a is outlined below.

- Full Project
  - Complete by 2016
  - Service to approximately 5,500 connections
  - 4 mgd treatment capacity
  - $125 million
  - Will require assessment district vote
  - Land has been purchased
  - Environmental documentation complete
- Phase 1a
  - Complete by 2013

- Service to approximately 175 connections
- 0.125 mgd treatment capacity
- $13 million
- No special assessment district required
- Fully functional stand-alone project
- Land has been purchased
- Environmental documentation complete

The **Mojave Water Agency Turf Removal Conservation Incentive Program** is a multi-year conservation program that has been in place since 2008. The level of incentives offered varies year to year based on available funding. MWA is seeking funding to extend and expand this program for two years. The success of two-year program for which MWA is seeking funding is not dependent on programs in other years.

Tasks

Joshua Basin Water District Recharge Basin and Pipeline Project Work Plan

Recharge Project Background

Joshua Basin Water District was formed as a public agency in 1963, when the District purchased and combined several smaller existing water systems. Since that time, the District has grown to serve more than 5,500 connections within its 96-square mile service area.

Situated above the Copper Mountain and Joshua Tree groundwater basins, the District's sole source of water is the groundwater that is pumped from these basins. Currently in a state of overdraft, the observed water level within these basins has been lowered by approximately 35 feet over the last 45 years. In 2004, the United States Geological Survey (USGS) completed a study concluding that approximately 1,600 acre-feet per year (afy) is being pumped from the basins which have an inflow of approximately 1,200 afy.[18] This technical study included modeling estimating movement of recharged water.

In January 1995, the Mojave Water Agency (MWA) completed construction of a 71-mile pipeline to deliver State Water Project (SWP) water to the communities served by the Hi-Desert Water District, Bighorn-Desert View Water Agency, San Bernardino County Service Area 70, and Joshua Basin Water District. That construction project included an agreement between the District and MWA, which entitled the District to an annual volume of 1,959 afy of SWP water and provided a stub-out at the District boundary for future extension of the MWA pipeline.

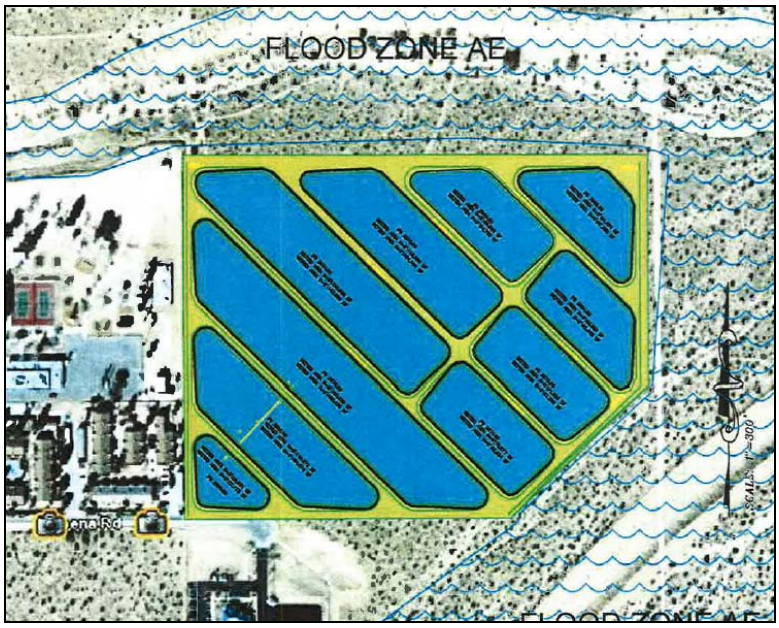
In 2004, MWA prepared a Regional Water Management Plan (RWMP) and Program Environmental Impact Report (PEIR) that evaluated water supply and demand throughout the MWA service area including within the JBWD service area. As part of this evaluation, projects and management actions were proposed to meet future water supply needs. The proposed JBWD Recharge Basin and Pipeline Project was included within the MWA RWMP as a priority water supply enhancement project for JBWD. The RWMP evaluated alternatives and concluded that the proposed project would constitute the most appropriate means of providing water supply and storage to meet future JBWD service area demands.

Project Description

As part of its long term groundwater management plan, the District will construct a Water Recharge Facility, consisting of a 12-inch water delivery pipeline and 30-acre recharge basin site. The water supply pipeline will provide the District access to SWP water and will relieve current overdraft conditions in the Joshua Tree groundwater basin.

[18] USGS, 2004, SIR 2004-5267

The proposed recharge pipeline project connects to the existing Morongo Basin Pipeline, located along the District boundary in the vicinity of Yucca Mesa Road and Barron Drive. The pipeline will be constructed within public rights-of-way approximately 4.4 miles to the WRF to be constructed on a 30- acre parcel located one-quarter mile east of the intersection of Sunburst Street and Verbena Road.



Recharge basin size requirements are based on a one-foot per day infiltration rate at each site. The project will require a total area of 29 acres for basin construction, which would include 22 wet acres. The project will involve construction of multiple (up to six) six- to seven-foot deep subbasins within one of the recharge basin alternative locations. The subbasins would be separated by overflow earthen weirs, allowing water to flow from subbasin to subbasin as needed. The basins would fill by gravity and no pumping equipment would be needed. Control valving would be used to add water to the various subbasins, as necessary. These valves would be contained within a small building on the site.

Water levels within the basins would not exceed original grade elevation and would be maintained at depths of three to five feet. Annual average recharge is anticipated to be approximately 2,000 afy; however, with the availability of water being less than a full year, the site is designed to allow the 2,000 af recharge in a six-month period. Because recharge basin operations require periodic drying and scarifying of the basin surfaces in order to assure desired infiltration rates, one or more of the basins could be out of service at any given time.

A six-foot high earthen berm would surround the recharge basin to provide visual screening. The perimeter berms would not be used to impound water or provide freeboard. The recharge basin site would also be fenced with eight-foot chain-link fence.

Project Goals and Objectives

The goals and objectives of the proposed project consist of the following:

1) Provide a primary source of groundwater recharge to increase storage, in the Joshua Basin region;
2) Allow the storage of water during wet hydrologic periods for recovery and use during dry periods, to provide JBWD customers with increased water supply reliability;
3) Reduce the demand for local groundwater;
4) Enhance water supply reliability;

5) Provide additional recharge to underlying groundwater basin, thereby reducing and/or reversing the degradation of local septic leachate on nitrate level buildup in District's water supply;
6) Take full advantage of total water supply available to the District - allowing acceptance of long-term State Water Project allocation, which have not been received due to lack of needed facilities;
7) Reduce or offset future economic impacts to the District customers by reducing need for extensive rate increases for water supply augmentation;
8) Reduce or eliminate risk of local ground subsidence caused by depleted groundwater levels within groundwater basin;
9) Replenishment of local groundwater basin prevents need to design, drill and operate deeper water supply wells which would result from groundwater basin depletion; and
10) Provides replenishment water to groundwater basin, needed as a result of reduced natural replenishment resulting from global climate change causing longer and drier drought periods.

Tasks

The accomplished and ongoing tasks associated with the proposed project are summarized in the table below:

TASK		DESCRIPTION	DELIVERABLE	STATUS
1a	Assessment and Evaluation	Prepare Preliminary Engineering Studies and evaluations of the proposed project	Preliminary Engineering Report	Completed October 2009
1b	USGS Modeling and Monitoring Well	Water quality transport modeling; Construction of monitoring well	Three reports[19], multi-completion monitoring well	The field work for this study has been completed. The reports have been drafted and are under peer review. Monitoring well completed November 2010.

[19] Three reports have been drafted for this study:

1. Data from a Thick Unsaturated Zone Underlying Unsewered Residential Development near Joshua Tree, San Bernardino County, California, 2007–09
2. Nitrate storage, denitrification, and potential for mobilization from thick unsaturated zones beneath selected land uses, Warren Basin and Joshua Tree Subbasin, California
3. Groundwater Flow and Solute-Transport Models of Joshua Tree Area, San Bernardino County, California.

TASK		DESCRIPTION	DELIVERABLE	STATUS
1c	Environmental Documentation	Prepare Draft and Final EIR in support of the project, including alternatives analysis	Draft and Final EIR	Completed and adopted by Board of Directors in September 2009
1d	Final Design	Prepare Plans, Specifications, and Estimates for proposed project	100% PS&E	Consultant selection process completed in February 2010. Final design contract is underway with expected completion in March 2011
1e	Land, easement, and ROW acquisition	Acquire properties and easements needed for construction of facilities	Property and easements rights	Property for recharge basin site acquired by the District. Encroachment permits for pipeline in Caltrans ROW awaiting final design.
1f	Permitting	Acquire required County, State, and Federal permits	Final permit documents	Pending
1g	Construction Contracting	Public Bid Process for selection of a contractor	Bid Advertisement, bid evaluation, contract award	Pending
1h	Construction	Construct Facilities	Final Facilities	Pending

Listing of all permits and status including CEQA compliance

- Final EIR adopted September 2009
- Encroachment permits for pipeline in CalTrans right-of-way awaiting final design
- All other permits for construction are being identified and initiated during the final design process, currently underway

Plans and Specifications

- **Draft plans included in Preliminary Design Report, included herein as Attachment X**
- Final design consultant has been selected and work is underway. Final plans and specifications are being developed, and will be final in May 2011.

Standards used

- All design elements will meet Joshua Basin Design Standards, as well as any requirements of permits (e.g. Caltrans Standards)

Performance measures, data management and monitoring

- Water deliveries will be metered at the interconnection with the Morongo Pipeline
- Percolation rates will be monitored to determine when recharge basins need to be cleaned to restore
- The USGS has constructed a multi-level monitoring well at the recharge pond site that will be used to monitor and verify percolation of recharge water and recovery of the groundwater levels. Ongoing monitoring of groundwater basin nitrate levels will be conducted .

Labor Code Compliance: The applicant recognizes that projects financed with Proposition 84 funds require enforcement of a labor compliance program pursuant to California Labor Code §1771.5(b), which will be in force at the time of grant contract award.

Consistency with Basin Plan. The project is consistent with the Colorado River Basin Plan.

Hi-Desert Water District Wastewater Treatment and Water Reclamation Project Work Plan

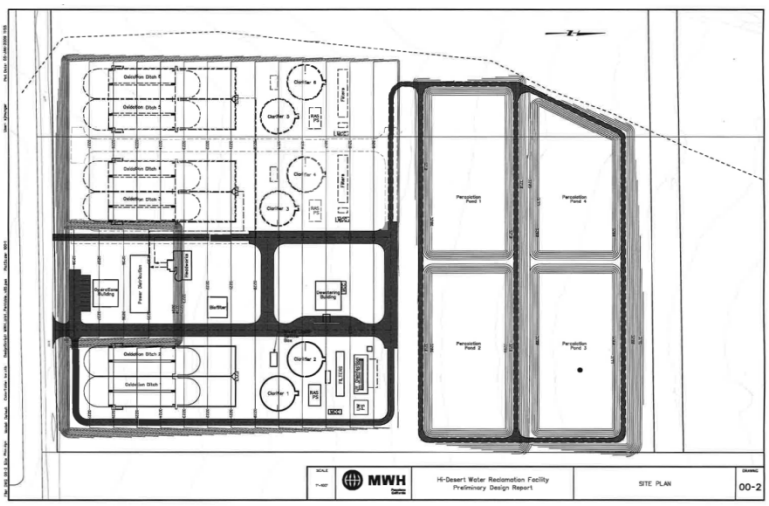
Project Background

The Hi-Desert Water District is proposing to construct a wastewater treatment facility and collection system to serve the residents of the Yucca Valley area. These subject grant funds will be utilized for tasks needed to ultimately construct the project. This project is necessary since there are no wastewater facilities in Yucca Valley, which currently utilizes septic systems. These septic systems are linked to nitrate contamination of the groundwater basin.

The Hi-Desert Water District is scheduled to be subject to a proposed septic prohibition, in March 2016, by the RWQCB to protect the drinking water supply (see Figure 8).

According to a USGS Water-Resources Investigation Report, from the late 1940s through 1994, water levels in the Warren sub-basin declined as much as 300 feet due to groundwater extraction. In response, the Hi-Desert Water District instituted an artificial recharge program in 1995 to replenish the groundwater basin using imported California State Water Project water. The artificial recharge program resulted in water-levels recovery of about 250 feet between 1995 and present; however, Nitrate (NO3) concentrations in some wells also increased from 10 mg/L to more than the U.S. EPA maximum contaminant level of 44 mg/L.

Project Description



Hi-Desert Water District will construct a cost-effective stand-alone Phase 1a to begin the District's ultimate wastewater collection, treatment, and disposal system. The intent is to provide a blueprint for the multi-phase sewer service to the Town of Yucca Valley. Phase 1a is a stand-alone portion of the project which will sewer approximately 175 connections in the eastern portion of the Town of Yucca Valley and convey and treat an average of 0.125 mgd. The project will be expanded in stages to collect up to 4 mgd of sewage from 5,500 connections. The wastewater will be treated to meet Title 22 recycled standards and discharge to percolation basins to recharge the treated effluent into the Warren Valley groundwater basin.

The first phase of the wastewater treatment and collection system will provide service to the most densely populated area in Yucca Valley, which is also the location of the majority of the District's groundwater wells. The Town of Yucca is disadvantaged community based on 80 percent of year 2000 statewide median household income. A wastewater system will result in the elimination of septic systems, as customers will be required to connect. The effluent from the treatment facility will be percolated into the District's recharge basin. Diversion of a portion of the effluent to parks and the local golf course is being considered as a future option, but currently there are no immediate plans for this.

Figure 8 - RWQCB Hearing Notice to Prohibit Septic Tank Discharges in Yucca Valley

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491

Public Notice No. 7-10-50
December 21, 2010

NOTICE OF PUBLIC HEARING AND
NOTICE OF FILING OF A DRAFT ENVIRONMENTAL DOCUMENT

IN THE MATTER OF A PROPOSED AMENDMENT
OF THE WATER QUALITY CONTROL PLAN FOR THE COLORADO RIVER BASIN REGION
TO PROHIBIT SEPTIC TANK DISCHARGES IN THE TOWN OF YUCCA VALLEY
Town Of Yucca Valley – San Bernardino County

NOTICE IS HEREBY GIVEN that the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) will hold a public hearing to receive comments on, and consider adoption of, a proposed amendment to the Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region, and its supporting draft "substitute environmental document" prepared pursuant to Section 21080.5 of the California Public Resources Code. T he proposed amendment will prohibit discharges from septic tanks in the Town of Yucca Valley, San Bernardino County.

The draft substitute environmental document concludes that the proposed amendment will have no significant effects on the environment. The document also includes analyses of socioeconomic impacts, and reasonably foreseeable means of compliance with the proposed amendment. The technical justification for the proposed amendment is provided in a staff report. The public hearing on this matter is scheduled as follows:

Date:	March 17, 2011
Time:	10:00 a.m.
Location:	City Council Chambers City of La Quinta 78-495 Calle Tampico La Quinta, CA 92253

At the conclusion of the public hearing, the Regional Water Board will consider approval of the draft substitute environmental document and adoption of the amendment as proposed, or as modified as a result of deliberations. Changes made to the amendment, if any, will be consistent with the purpose of the amendment.

The public review period for the proposed amendment, draft substitute environmental document, and staff report will be from December 22, 2010, to February 5, 2011. Written comments or questions on the proposed amendment, draft substitute environmental document, or staff report should be directed to the attention of Jon Rokke at the address above. Mr. Rokke can be reached by phone at (760) 776-8959. Please include the term "BPA Prohibition of Septic Tank Discharges in the Town of Yucca Valley" in the heading of your comments to ensure proper routing. The proposed amendment, draft substitute environmental document, and staff report are available on the Regional Water Board's Internet webpage at: http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/ Copies of these documents may also be obtained by calling (760) 346-7491. In addition, these documents, along with the Regional Water Board's Basin Plan and related materials, may be inspected at the Regional Water Board office, located at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260. The proposed amendment, draft substitute environmental document, and staff report will also be available for viewing at the Yucca Valley Branch of the San Bernardino County Library, 57098 29Palms Highway, Yucca Valley, CA 92284.

The La Quinta City Council Chambers are accessible to people with disabilities. Individuals requiring special accommodations are requested to contact Hilda Vasquez at (760) 776-8950 at least five (5) working days prior to the Regional Water Board hearing. TTY users may contact the California Relay Service at 1 (800) 735-2929 or voice line at 1(800) 735-2922.

Project Goals and Objectives

The goals and objectives of the proposed project consist of the following:

1) Construct a wastewater collection system to reduce the quantity of leachate from septic tank systems flowing into aquifers used for the District's potable water supply;
2) Treat wastewater to a level such that percolated effluent will not degrade groundwater quality;
3) Provide the core infrastructure for expansion of the collection, treatment and disposal system as needed either to further protect groundwater, or to accommodate growth in the District's service area;
4) Maximize the total water supply available to the District; and
5) Minimize any adverse economic and environmental impacts on the community.
6) In addition, specific objectives for the Phase 1a treatment facilities are as follows:
7) Provide sufficient treatment capacity to ensure continuous compliance with anticipated regulatory requirements for an average annual wastewater flow of 0.125 mgd.
8) Provide for future expansion of the plant to an annual average flow capacity of 4 mgd.

Tasks

The accomplished and ongoing tasks associated with the proposed project are summarized in the table below:

TASK		DESCRIPTION	DELIVERABLE	STATUS
2a	Land Acquisition, Easements and Rights of Way	Acquire the land and easement rights to construct the Treatment Plan and collection system	Land ownership; Easement and ROW acquisition	Land acquisition completed in 2003; easements to acquired after final design
2b	Sewer Master Plan	Develop the strategy for deploying the sewer system	Sewer Master Plan	Completed in 2008
2c	Design			
2c1	Prelim Design for Phase 1a	Preliminary Design Report for the construction of Phase 1a	Preliminary Design Report	Completed by March 2011
2c2	Survey and Mapping	Survey and Map the land in Phase 1 and 2 to prepare a project control network, map topography, septic tanks, sensitive plants, and easements	Survey Documents	Completed by December 2011
2c3	Hydrology Study	Study runoff and	Hydrology Report	Complete by

TASK		DESCRIPTION	DELIVERABLE	STATUS
		water flow to determine mitigation measures		December 2011
2c4	Geotechnical Study	Study of soil and geologic characteristics to determine compaction and foundation requirements and if mitigation measures are necessary	Geotechnical Report	Complete by December 2011
2c5	Conditional Use Permit	Submit to the Town of Yucca Valley the Conditional Use Permit to determine the site improvements to meet the Town's standards	Conditional Use Permit	Completed by December 2011
2c6	Final Design	Using the Survey and Mapping, the Final Engineered Plans for Construction	Final Design Plans	Completed by July 2012
2d	CEQA Environmental Review	State Environmental Clearance	Mitigated Negative Declaration	Completed August 2009
2e	NEPA Environmental Review	National Environmental Clearance	FONZI	Completed by February 2011
2f	Permitting	Acquire required town, County, State, and Federal permits, including discharge permit	Final permit documents, discharge permit	Completed by July 2012
2g	Assessment District Formation			
2g1	State Revolving Loan Application	Maintained the listing on the State Revolving Fund Funding priority list	Loan Application	Completed by June 2011
2g2	Assessment District Formation	Forming the mechanism to assess the property owners to fund the Project	Engineer's Assessment Report	Completed by March 2011
2g3	Vote	Balloting to form assessment district	Assessment district formed	Completed by May 2011

TASK		DESCRIPTION	DELIVERABLE	STATUS
2h	Construction			
2h1	Construction Contracting	Public Bid Process for selection of a contractor	Bid Advertisement, bid evaluation, contract award	Pending
2h2	Construct Phase 1a	Project Construction	Completed project	Completed by July 2013
2h3	Construct Future Phases			
2h3a	Construct Phase 1b	Project Construction	Completed phase	Completed by August 2014
2h3b	Construct Phase 2	Project Construction	Completed project	Completed by May 2015
2h3c	Construct Phase 3	Project Construction	Completed project	Completed by February 2016
2i	Begin Operation	Operations Begin	Functional Facility	Completed by August 2013

Construct Phase 2	Shaded tasks are not part of the grant application, but are provided for context

Listing of all permits and status including CEQA compliance

- Final EIR adopted August 5, 2009
- Discharge permit to be acquired by July 2012
- Town, County, State and Federal permits to be acquired by July 2012

Plans and Specifications

- Draft plans included in Preliminary Design Report, included herein as Attachment Y
- Are there other plans and/or specs available?

Performance measures, data management and monitoring

Performance monitoring will include:

- Influent metering and water quality measurement
- Effluent metering and water quality measurement
- Groundwater quality sampling adjacent to the percolation ponds

Additional monitoring requirements specified by the Colorado River Basin Regional Water Quality Control Board are in draft form[20], and are included in this application as "Att6_IG1_MWA_Measures_2ofTotal2".

[20] Colorado River Basin RWQCB, July 22, 2009 Draft Order No. R7-2009-0059 Waste Discharge Requirements for Hi-Desert Water District,

Environmental Compliance. Hi-Desert Water District Resolution No. 09-16 adopting the Mitigated Negative Declaration for the project was adopted August 5th, 2009. A copy of the resolution is attached as Figure 9.

Labor Code Compliance: The applicant recognizes that projects financed with Proposition 84 funds require enforcement of a labor compliance program pursuant to California Labor Code §1771.5(b), which will be in force at the time of grant contract award.

Consistency with Basin Plan. The project is consistent with the Colorado River Basin Plan. A proposed change to the Basin Plan relevant to this project will prohibit use of septic tanks in the town of Yucca Valley (see Figure 8, page 25).

Figure 9 - HDWD Resolution Adopting Mitigated Negative Declaration

RESOLUTION NO. 09-16

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE HI-DESERT WATER DISTRICT ADOPTING A MITIGATED NEGATIVE DECLARATION AND A MITIGATION MONITORING AND REPORTING PROGRAM AND APPROVING THE HI-DESERT WATER DISTRICT WATER RECLAMATION FACILITY, WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM PROJECT

WHEREAS, the Hi-Desert Water District ("District") is a local water district serving the greater Yucca Valley area in Southern California; and

WHEREAS, the District wishes to construct and install a water reclamation facility, wastewater treatment plant, and collection system to eliminate existing septic systems (the "Project"), thereby reducing the amount of nitrate contamination and ensuring the protection and ultimate enhancement of water quality within the District's service area; and

WHEREAS, Phase 1 the proposed Project would involve the construction and installation of a wastewater treatment facility designed for an initial two (2) million gallons per day (MGD) treatment capacity; a sewage collection system that will serve the core developed area of the Town of Yucca Valley; and percolation basins used to return treated effluent to the Warren Valley Groundwater Basin; and

WHEREAS, Phase 2 of the proposed Project, if needed to protect groundwater quality and expand sewer capacity, would expand the collection, treatment, and disposal facilities to collect an additional one (1) MGD of sewage; and

WHEREAS, Phase 3 of the proposed Project, if needed, would include facilities designed to collect an additional one (1) MGD of wastewater flow for a total system capacity of four (4) MGD; and

WHEREAS, the proposed Project site would be located approximately 1,000 feet south of State Route 62 (Twenty-nine Palms Highway), east of Indio Avenue, north of Sunnyslope Drive, and west of La Contenta Road in the Town of Yucca Valley in San Bernardino County, California; and

WHEREAS, the proposed Project improvements would satisfy current wastewater collection, treatment, and disposal demands and are consistent with approved local planning; and

WHEREAS, pursuant to the California Environmental Quality Act ("CEQA") (Pub. Res. Code, § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs, tit. 14 § 15000 et seq.), the District is the lead agency for the proposed Project; and

WHEREAS, District staff reviewed the Project and determined that it is subject to the requirements of CEQA and prepared an Initial Study/Environmental Assessment; and

WHEREAS, on the basis of the Initial Study/Environmental Assessment, which concluded that the Project will not have significant impacts on the environment with mitigation, the District determined that a Mitigated Negative Declaration ("MND") should be prepared for the Project, and an MND was prepared pursuant to CEQA and the State CEQA Guidelines; and

WHEREAS, the District provided copies of the draft MND and Initial Study/Environmental Assessment to the public and the State Clearinghouse for a thirty-day review and comment period beginning on June 9, 2009 and ending on July 9, 2009 pursuant to Public Resources Code section 21091(b), and written comment letters were received by the District; and

WHEREAS, as contained here, the District has endeavored in good faith to set forth the basis for its decision on the proposed Project; and

WHEREAS, all of the findings and conclusions made by the District pursuant to this Resolution are based upon the oral and written evidence before it as a whole; and

WHEREAS, the District's Board of Directors has reviewed the MND, Initial Study/Environmental Assessment, and all other relevant information contained in the record regarding the Project; and

WHEREAS, on July, 15 2009 at a duly noticed special District Board meeting, further consideration of the proposed Project was postponed to allow staff to respond to additional public comments on the MND; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred;

NOW THEREFORE, the Board of Directors do hereby resolve as follows:

SECTION 1. Compliance with the California Environmental Quality Act. As the decisionmaking body for the Project, the Board of Directors has reviewed and considered the information contained in the MND, Initial Study/Environmental Assessment, and administrative record, on file with the District and available for review at the District office, 55439 Twentynine Palms Highway, Yucca Valley, California 92284. The Board of Directors finds that the MND and Initial Study/Environmental Assessment have been completed in compliance with CEQA and the State CEQA Guidelines.

SECTION 2. Findings on Environmental Impacts. In the District's role as the lead agency under CEQA, the Board of Directors finds that the MND and Initial Study/Environmental Assessment contains a complete and accurate reporting of the environmental impacts associated with the Project. The Board of Directors further finds that the documents have been completed in compliance with CEQA, the State CEQA Guidelines, and the District's Local CEQA Guidelines. The Board of Directors further finds that all environmental impacts of the Project are either insignificant or can be mitigated to a level of insignificance pursuant to the mitigation measures outlined in the MND, Initial Study/Environmental Assessment, and the Mitigation Monitoring and Reporting Program. The Board of Directors further finds that there is no substantial evidence in the record supporting a fair argument that the Project may result in significant environmental impacts, and that all comments received regarding the Project have been examined and determined

to not modify the conclusions of the MND or the Board of Directors. The Board of Directors finds that the MND contains a complete, objective, and accurate reporting of the environmental impacts associated with the Project and reflects the independent judgment of the Board of Directors.

SECTION 3. Adoption of Mitigated Negative Declaration. The Board of Directors hereby approves and adopts the MND prepared for the Project.

SECTION 4. Adoption of the Mitigation Monitoring and Reporting Program. The Board of Directors hereby approves and adopts the Mitigation Monitoring and Reporting Program prepared for the Project and included in the MND.

SECTION 5. Custodian of Records. The documents and materials that constitute the record of proceedings on which these findings are based are located at the Hi-Desert Water District office, 55439 Twenty-nine Palms Highway, Yucca Valley, California 92284. Mr. Joseph Glowitz, District Engineer, is the custodian of the record of proceedings.

SECTION 6. Execution of Resolution. The President of the Hi-Desert Water District and its Board of Directors shall sign this Resolution and the Secretary of the Hi-Desert Water District and its Board of Directors shall attest and certify to the passage and adoption thereof.

PASSED, APPROVED, AND ADOPTED this 5th day of August, 2009 by the following vote:

Ayes: Munsey, Mayes, Hough, Graham
Noes:
Abstain:
Absent: Stadum

Sheldon Hough, President of Hi-Desert Water District and its Board of Directors

ATTEST:

Ed Muzik, Secretary of Hi-Desert Water District and its Board of Directors

(Seal)

Mojave Water Agency Turf Removal Conservation Incentive Program Work Plan

Executive Summary

The Turf Replacement Water Conservation Incentive Program (WCIP) will provide incentives to residential water users to reduce their per capita consumption. Multi-family, commercial, institutional and industrial water users would also have access to turf replacement incentives. This project would fund a two-year extension to the program for the removal of turf grass with partial replacement of drought tolerant and desert adaptive landscaping to improve water use efficiency.

The project is consistent with the Conservation and Demand Management provisions of the MWA Integrated Regional Water Management Plan (IRWMP), and will be incorporated into a five-year conservation plan to be implemented upon finalization of the 2010 Urban Water Management Plan (UWMP) update. Long-term monitoring of project performance is an integral part of the Program.

Background Data

MWA has been funding water conservation incentives to 25 retail water agencies and well owners since February 2008. Providing financial incentives for water conservation is a key implementation strategy in the MWA's adopted Demand Management Measures[21]. As a signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding, MWA has pledged to implement conservation Best Management Practices (BMPs) to reduce current and future water demands through more efficient water use, including providing financial incentives to retail agencies within the service area. This has been accomplished through offering three incentive programs:

- high efficiency toilet rebates and vouchers
- high efficiency clothes washer rebates, and
- turf removal incentives with information on low water using landscapes

The turf removal component has produced the most cost-effective results and has fostered the highest level of water savings of these three components. With additional funding, this level of community support and participation in the program can continue to increase this cost-effective water use efficiency solution.

The Mojave Water Agency utilizes native groundwater supplies recharged largely from runoff from the San Bernardino Mountains, and imports water via the California State Water Project (SWP). MWA is a SWP contractor and wholesales imported water supplies to service area water users. Water saved through conservation activities will help maintain local water supply within the MWA service area.

[21] Specifically, Demand Management Measure 10, Wholesaler Agency Programs

The turf replacement incentive program is limited to removing turf grass from developed residential and commercial properties, and will not impact any threatened, endangered, or candidate plant or wildlife species.

Technical Project Description

Project Schedule. Fiscal Years 2012 and 2013 will be the third and forth years in the "Cash For Grass" turf replacement program, an integral part of MWA's water conservation strategy. The requested grant will be used to supplement MWA budgeted amounts of $500,000 in each of next two fiscal years. The program is thus up and running and grant-funded activities will commence on July 1, 2011 and continue until June 30, 2013.

General Scope. The Water Conservation Incentive Program (WCIP) turf replacement program provides rebates to water users within the Mojave Water Agency service territory for replacement of turf grass with low-water-using landscaping. This program has proven to be one of the most popular and most effective water conservation programs being offered.

In just over two years of operation, the turf replacement rebate incentive has saved over 570 acre feet of water per year through the removal of 3.4 million square feet of turf grass in the MWA service area. Approximately 6 million square feet of turf will be under new contracts for removal by the end of Fiscal Year 2013, saving a minimum of an additional 1,012 acre-feet per year by June 30, 2013.

For applicants approved to participate in the program:

- Applicants have six months for the landscape conversion project to be completed.
- The converted landscape must replace at least 25% of the area of turf removed with desert adaptive and/or drought tolerant plants. Landscapes must be configured to minimize stormwater runoff and maximize percolation to groundwater.
- Upon successful completion of the landscape conversion, the applicant is eligible for a $0.50 per square foot rebate check up to a maximum of $3,000 for 6,000 square feet of irrigated turf removed.
- Commercial applicants are eligible for up to $10,000 if 20,000 square feet or more of irrigated turf is removed on an application site.

The project water savings is calculated with a standard coefficient[22] of 55 gallons of water per year saved per square foot of turf replaced with xeriscape. Individual MWA retailer service area studies have shown savings of up to 80 gallons per square foot.

Project Approach. The major tasks associated with the rebate program include: advertising; pre-inspection and measurement of the applicant site; application and phone call processing; data entry of application and water savings data into a common database; and, post-inspection of the final landscape before issuance of the rebate check. Customer support is ongoing throughout the application process

[22]The 2005 Southern Nevada Water Authority Xeriscape Conversion Study shows average water savings o f 55.8 gallons per square foot by converting grass to a water smart landscape when turf grass is replaced with xeriscape (http://www.snwa.com/html/cons_wsl_xeriscape.html). Audited water bills within the Mojave Water Agency show similar (55 gallons per square foot) results for Cash for Grass program participants. Average ETo in Mojave Water Agency is 68 inches per year.

and the levels vary by application. Follow-on audits to measure retention of the xeriscape landscaping to develop hard data on the longevity of water savings from the program.

A summary of the principle tasks, deliverables, and their status is presented below, followed by an expanded description of program administration and implementation (Task 3b).

TASK		DESCRIPTION	DELIVERABLE	STATUS
3a	Advertising	Place print and broadcast media ads; Attend community functions & distribute multi-lingual application materials	Print materials; Advertisements;	Print materials exist; Broadcast ads have been run previously and will require updating
3b	Administer and Implement Rebate Program	Work with residential, commercial and industrial customers to write contracts for reimbursing $0.50 per square foot of turf removal	Contracts for up to 6,000,000 square feet of permanent turf removal over two years; Documentation and processing of applications, documentation of pre- and post-conversion inspections, disbursement of funds and accounting.	This is an existing program in place since 2008, with over 3.4 million square feet of turf replaced to date; program will proceed once supplemental funding is secured
3c	Long-term Performance Audit	Perform audits to determine duration of turf removal	Publish report every 5 years reporting rate of maintaining low-water use landscapes; Publish results on web, in UWMP updates, and provide to DWR	Not started

Administration and Implementation. This section provides additional detail on Task 3b, Program Administration and Implementation.

Program Administrative activities involve coordination of all Project activities, including budget, schedule, communications, and grant and cost-share administration, preparation of invoices and maintenance of financial records.

The non-State funding for this project will be provided by the Mojave Water Agency. Each year the Agency receives revenues from property taxes. The taxes are collected by the County of San Bernardino Tax Assessor on behalf of the Agency on property tax bills. Currently, the Agency estimates $30-35 million will be collected on the property tax payments for the 2010/2011 tax year. Additionally, the Agency has cash reserves which will be used to fund capital projects. The funds received from the

annual tax revenue and the monies from the capital reserves will be used to pay for the non-State funding.

Administration of incentive applications includes pre- and post-conversion inspection, monitoring and reporting. Pre-inspection services and customer support are provided by the local retail agencies under the oversight of the MWA Project Manager. Some of retail agencies have provided additional incentives in the past[23].

- ***Pre-Conversion Inspection***
  Pre-inspections and approval of existing landscapes will be conducted by participating local water districts. The application must be pre-approved before removing any lawn and beginning a conversion. Photos of the existing lawn will be taken during the landscape pre-inspection.
- ***Post-Conversion Inspection***
  Once the landscape conversion project is finished, the landowner is responsible for notifying the local water district of completion. The post-conversion inspection includes taking photos of the converted landscape, obtaining converted landscape area measurements, irrigation system inspection, plant eligibility review for program compliance and rebate eligibility verification. If the converted landscape or irrigation system fails inspection, the landowner is allowed 60 days (or the remainder of the six-month period, whichever is greater) to fully comply with the program conditions.

http://www.hdawac.org/MWA_rev/

The turf removal rebate program has been operating for over 2 years, and over 3.4 million square feet of turf has been removed to date. In every year, the demand for rebate funds from residents wishing to reduce water use has exceed the funding available. No additional design of the program is necessary.

- ***Construction***
  Furnishing and installing of all Project works is the responsibility of the conservation incentive applicant. Turf replacement plans must be pre-approved by the Agency before work commences, and post-installation inspection by the Agency is required before the rebate will be paid.
- ***Construction Management***
  Other than post-installation inspection to ensure conformance with the rebate requirements, the construction and construction management are the responsibility of the rebate applicant.

[23] Only Phelan-Piñon Hills Community Service District plans to contribute additional funding in Fiscal Year 2011

Listing of all permits and status including CEQA compliance:

- Final Program EIR adopted February 2005
- No additional permitting or environmental documentation is expected to be necessary

Plans and Specifications:

- The Turf Incentive Program (Cash For Grass) application and guidelines are included herein as Figure 10 (page 38).

Performance measures, data management and monitoring:

- As described above, pre-and post-replacement inspections are made to ensure the eligibility of the property, to provide guidance on xeriscape plantings, and to confirm the work has been performed per the guidelines
- Long-term audits to determine duration of turf removal and xeriscape plantings. Audit report will be published every 5 years reporting rate of maintaining low-water use landscapes. Results will be publish on the MWA website, in UWMP updates, and provided to DWR

Consistency with Basin Plan. The project is consistent with the South Lahontan Basin Plan.

Figure 10 - Cash for Grass Application Form

Application # _____ Date _____

HIGH DESERT SAVES WATER Cash for Grass Landscape Program

Mojave Water Agency (MWA), in partnership with your local water district or municipality, and the State of California Department of Water Resources, are offering property owners a rebate cash incentive to remove lawn and replace it with water-efficient landscaping through the Cash for Grass Program. Beginning in February 2008, rebates are offered to water retailer customers and property owners served by the Mojave Water Agency at $0.50 per square foot to replace lawn with eligible low water-use landscaping. This program offers financial assistance to customers by offsetting a portion of the cost to convert water-thirsty lawn to native and desert adaptive landscapes.

Alliance for Water Awareness and Conservation
awac
Water-Conserve Today for Tomorrow

DEPARTMENT OF WATER RESOURCES · STATE OF CALIFORNIA

REQUIREMENT: Please read all program rules carefully before submitting this application.
1. Starting without water agency approval will make your landscape conversion project ineligible for participation in this program.
2. Program funding is limited.
3. Applications will be accepted on a first-come, first serve basis while funding is available.
4. MWA, at its discretion, may at any time modify, suspend, or terminate this program without prior notice.
5. Please submit this original application only after application is completed and all necessary items listed are included.

ELIGIBILITY

Customers served by local water district municipalities: Program application must be mailed to your local water district and **pre-approved** by your local water district before removing any lawn and beginning the landscape conversion project. Your water district may require your presence during the site pre-inspection before providing approval for your project. See item "PRE-CONVERSION INSPECTION" on other side of this application for more information.

Customers served by water retailers and those receiving water from alternative water sources such as wells or water truck haulers: Program application and your most recent property tax statement must be mailed to the Mojave Water Agency and **pre-approved** by Mojave Water Agency before removing any lawn and beginning the landscape conversion project. MWA may require your presence during the site pre-inspection before providing approval for your project. See item "PRE-CONVERSION INSPECTION" on other side of this application for more information.

Areas to be converted must be living and maintained lawn only.

Residential landscape conversion limits – zero square feet (sq. ft.) up to 6,000 sq. ft. maximum.

Commercial/Industrial/Institutional (CII) landscape conversion limits – zero square feet up to 20,000 sq. ft. maximum.

Applicant must participate in a post-inspection to receive final approval and sign-off of the landscape and irrigation system conversion before a rebate check will be issued. Once your project is completed, contact Niagara Conservation Corporation to schedule a post inspection at 800-831-8383, ext. 9308.

Note: *Prior to conversion projects exceeding maximum square footage will be considered on a case-by-case basis and subject to pre-approval by Mojave Water Agency.

FOR OFFICE USE ONLY
PRE-INSPECTION
Date _____
Application # _____
Water Account # _____
Water District Code _____
Site _____

Residential ☐
Multi-Family ☐
CII ☐

Sq Ft grass to be removed _____
Sq Ft of plant cover (A ÷ 4) _____
Type of irrigation in area _____
Consumption history of customer _____
Expected date of completion _____
Date photo taken (attached) _____
Inspector signature _____
Owner signature _____

POST-INSPECTION
Date _____
Sq Ft removed _____
Sq Ft of plant cover installed _____
Converted to drip irrigation
Yes ☐
No ☐
Date photo taken (attached) _____
Inspector Signature _____
Owner Signature _____

Notes: _____

Property Owner _____ Date _____
Service Address _____
Mailing Address *(if different than above)* _____
City _____ Zip _____
Daytime Phone ( ) _____ Evening Phone ( ) _____
Email Address _____
Your Water District _____
My Account Number or APN is: (Please refer to your water bill or property tax statement) _____
How did you hear about the program? Mailer__ Newspaper__ Radio__ AWAC__ Website__ Other_____

Please read the paragraph below carefully before signing. If you do not fully understand each of the statements, please call 800-831-8383, ext. 9308 or visit www.highdesertsaveswater.org.

I am the rightful owner or owner's agent for the property described above. I agree to abide by the rules of this program. This application has been accurately completed and the information herein is intended to meet the incentive program requirements. I understand that I may be disqualified from this program if my irrigation system is found to have any serious inefficiencies during the irrigation audit. I will not begin my landscape conversion replacement project until I have been notified at or following the pre-conversion inspection that my application has been approved.

Property Owner: _____ ***Date:*** _____

Inspector's Signature: _____ ***Phone Number:*** _____

For office use only Processed by_____ Date _____ Check Amount _____ Check# ____ Date to NCC _____ by _____ ORIGINAL NCC • YELLOW WATER AGENCY • PINK POST-INSPECTION CUSTOMER • GOLD PRE-INSPECTION CUSTOMER

Mojave Water Agency

LANDSCAPING REQUIREMENTS

A 25% living plant coverage may be required by your supervising water district or municipality. This information will be provided during your pre-inspection.
Plant lists are available through your local water district or municipality and the Alliance for Water Awareness and Conservation (AWAC) www.hdawac.org website.
Remaining lawn areas are not considered as plant cover.
Plants and lawn outside the converted area are not covered or considered in the rebate calculation even if they are adjacent or overhanging into the area.
It is recommended that converted areas be covered by a minimum two (2) inch layer of permeable mulch and this may be a requirement in your area.
Mulches may include bark, rock, un-grouted stepping stones, and permeable artificial turf. Non-permeable materials like plastic film are not permitted.

IRRIGATION SYSTEM REQUIREMENTS

If a spray irrigation system is currently being used, it must be converted to a low-volume drip system equipped with a pressure regulator, filter and emitters providing irrigation to new plantings.
Each drip emitter must be rated at less than 20 gallons per hour (gph).
Spray irrigation is not permitted in the landscape conversion area and must be capped off if not converted to drip irrigation.
If part of a lawn is converted, the sprinkler system must be properly modified to provide adequate coverage to the remaining lawn without spraying the converted area.

REBATE TERMS

The terms of this agreement expire in six calendar months from the date the application is approved, or the date of the pre-inspection. Extensions are not available.
The final inspection is not counted against the six-month time limit once your water district or Niagara Conservation Corporation has been notified that your project is complete.
Only one rebate payment may be received under this agreement.
Mojave Water Agency reserves the right to reject or limit the number of applications being processed.
Applications will be accepted on a first-come, first-serve basis and only while funding is available or until the program is discontinued.

REBATE AMOUNT

The Cash for Grass rebate is $0.50 per square foot for approved landscape conversions.
Additional rebate dollars may be provided by your local water district and will be added to your rebate check.
Cash for Grass rebate amounts:

$0.50 up to $3,000 – Single Family Residential
$0.50 up to $10,000 – Commercial, Industrial and Institutional

Rebate checks are issued within 60 days after the post-inspection to the billing name on the account.

PRE-CONVERSION INSPECTION

Pre-inspections of your existing landscape will be conducted by your local water district or municipality. Applicants who receive water by well or water hauler service will be pre-inspected by Mojave Water Agency. Your application must be pre-approved before removing any lawn and beginning a conversion.

- ☐ Photos of the existing lawn will be taken during the landscape pre-inspection. _____ (Initial)
- ☐ Your local water district **requires** that you, or an authorized person over the age of 18, be present during the pre-conversion inspection.
- ☐ Your local water district, municipality or MWA **does not require** your presence during the pre-conversion inspection. If you are unable to be present and authorize the pre-inspection to take place, please sign the site authorization section of your application form. _____ (Initial)

POST-CONVERSION INSPECTION

Once the landscape project is finished, you are responsible for notifying Niagara to schedule a post-inspection. Niagara's toll free number is 800-831-8383, ext. 9308.
You, or an authorized person over the age of 18, are required to be on premise during the post-inspection.
The post-inspection will include taking photos of the converted landscape, obtaining converted landscape area measurements, irrigation system inspection, plant eligibility review for program compliance and rebate eligibility verification._____(Initial)
If the converted landscape or irrigation system fails inspection, you will be notified, provided an explanation, and allowed 60 (sixty) days or the remainder of the six-month period, whichever is greater, to fully comply with the program conditions. No additional extensions are allowed.

CONVERSION SUSTAINABILITY REQUIREMENTS

The converted area must remain in compliance with all program conditions for a period of two (2) years.
If the landscaping is altered during this two (2) year period, you may be required to refund some or the entire rebate if this requirement is violated.
Landscape and plant maintenance, plant quality and appearance before, during, and after the conversion are the sole responsibility of the applicant.
This requirement is void upon property transfer of ownership.

OTHER APPLICANT RESPONSIBILITIES

Mojave Water Agency and partnering water districts enforce only the conditions of this agreement.
The applicant is responsible for complying with all laws, policies, codes and covenants that may apply.
Program rebates for more than $600 may be considered taxable income requiring IRS Form 1099 to be issued as required by law.

Disclaimer – MWA reserves the right to reject any application that does not meet all of the requirements of the MWA "Cash for Grass" Landscape Incentive Program. MWA makes no representations or warranties as to the condition, quality, effectiveness, operability or cost of installing or maintaining residential, multi-family, commercial, industrial, or institutional landscapes subject to this program, or of removing or disposing of any landscape or irrigation equipment debris in connection therewith and, to the extent not prohibited by law, disclaims all express and implied conditions, representations and warranties related thereto, including without limitation, any implied warranty of merchantability or fitness for a particular purpose. Limitation of Liability/Release – Applicant understands and agrees that, to the extent not prohibited by law, in no event shall MWA, its officials, officers, employees or agents be liable for any claimed or actual damages or losses of any kind, however caused and regardless of the theory of liability, related in any way to this landscape "Cash for Grass" rebate incentive program, even if MWA has been advised of the possibility of such damages or losses. To the extent not prohibited by law, applicant assumes all risks associated with this program, including without limitation, all risks associated with purchase, installation and maintenance of landscape material and irrigation system equipment subject to this program (including without limitation the risk of not realizing cost savings as a result of converting to low water use landscape), and the removal and disposal of any landscape materials, irrigation system equipment, and landscape maintenance debris in connection therewith. Applicant releases MWA its officials, officers, employees and agents from any and all claims for damage or death or injury to any persons or property arising in any way from this "Cash for Grass" landscape rebate incentive program, any landscape material disposal, irrigation system equipment, or landscape maintenance and equipment subject to this program (including without limitation the use or operation thereof), or the removal or disposal of any landscape materials and irrigation system equipment in connection therewith, other than those caused solely by the willful or grossly negligent acts or omission of MWA.

Proposition 84 IRWM Grant Administration

This task consists of detailed subtasks and milestones associated with administering the Proposition 84 grant, consistent with those shown in the project schedule (Attachment

TASK		DESCRIPTION	DELIVERABLE	STATUS
4a	Application	Prepare Proposition 84 Implementation Grant application	Complete application posted on BMS with 4 hard copies	Submitted January 7, 2011
4b	DWR Review	Review and scoring of grant applications	Recommend projects to be funded	Not started
4c	Award	Develop contracts with selected applicants	Completed grant contracts	Not started
4d	Start Construction	Milestone date for start of construction of first MWA project	Two of three projects will be ready for implementation within 6 months of grant award	Pending grant award
4d	Quarterly Reports	MWA grant administrator submits quarterly progress reports to DWR	Quarterly project reports to DWR on grant-funded activities	Pending grant award
4e	Final Report	MWA grant administrator submits final progress report to DWR	Final progress report at end of all grant-funded project implementation	Pending grant award